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## **Supplemental Information**

### **Programmed Secretion Arrest and Receptor-Triggered Toxin Export during Antibacterial Contact-Dependent Growth Inhibition**

**Zachary C. Ruhe, Poorna Subramanian, Kiho Song, Josephine Y. Nguyen, Taylor A. Stevens, David A. Low, Grant J. Jensen, and Christopher S. Hayes**

**Table S1. Tomograms collected, Related to Figures 1 and 3.**

Strain	Plasmid	Sample	Tomograms with filaments	Total tomograms collected
EC93 <i>bamA</i> <sup>LT2</sup>	none	bacteria	21	21
EC93 $\Delta$ <i>cdiA</i>	none	bacteria	0	16
EPI100 $\Delta$ <i>bamA</i> :: <i>cat</i> pZS21- <i>bamA</i> <sup>ECL</sup>	pDAL660 $\Delta$ 1-39 CdiA <sup>EC93</sup>	bacteria	21	21
EPI100 $\Delta$ <i>bamA</i> :: <i>cat</i> pZS21- <i>bamA</i> <sup>ECL</sup>	pDAL660 $\Delta$ 1-39 CdiA <sup>EC93</sup>	minicells	24	24
EPI100 $\Delta$ <i>bamA</i> :: <i>cat</i> pZS21- <i>bamA</i> <sup>ECL</sup>	pDAL660 $\Delta$ 1-39 CdiA <sup>EC93</sup>	bacteria + solubilized BamA	3	3
EPI100 $\Delta$ <i>bamA</i> :: <i>cat</i> pZS21- <i>bamA</i> <sup>ECL</sup>	pDAL660 $\Delta$ 1-39 CdiA <sup>EC93</sup>	minicells + buffer/detergent	6	6
EPI100 $\Delta$ <i>bamA</i> :: <i>cat</i> pZS21- <i>bamA</i> <sup>ECL</sup>	pDAL660 $\Delta$ 1-39 CdiA <sup>EC93</sup>	minicells + solubilized BamA	38	38
EPI100 $\Delta$ <i>bamA</i> :: <i>cat</i> pZS21- <i>bamA</i> <sup>ECL</sup>	pDAL660 $\Delta$ 1-39 CdiA <sup>EC93</sup>	minicells + target minicells (vesicles)	42	42
EPI100 $\Delta$ <i>bamA</i> :: <i>cat</i> pZS21- <i>bamA</i> <sup>ECL</sup>	pWEB-TNC (no CdiA)	minicells	0	11
EPI100 $\Delta$ <i>bamA</i> :: <i>cat</i> pZS21- <i>bamA</i> <sup>ECL</sup>	pCH12707 CdiA(Gly1318) <sup>EC93</sup>	minicells	0	17
EPI100 $\Delta$ <i>bamA</i> :: <i>cat</i> pZS21- <i>bamA</i> <sup>ECL</sup>	pCH12705 CdiA(Thr2122) <sup>EC93</sup>	minicells	14	14
EPI100 $\Delta$ <i>bamA</i> :: <i>cat</i> pZS21- <i>bamA</i> <sup>ECL</sup>	pCH12706 CdiA(Val1929) <sup>EC93</sup>	minicells	10	10
EPI100 $\Delta$ <i>bamA</i> :: <i>cat</i> pZS21- <i>bamA</i> <sup>ECL</sup>	pZR113 CdiA(Ser832) <sup>EC93</sup>	minicells	0	13
MG1655 $\Delta$ <i>wzb</i> $\Delta$ <i>tsx</i> $\Delta$ <i>ompT</i>	pET21b (no CdiA)	bacteria	0	11
MG1655 $\Delta$ <i>wzb</i> $\Delta$ <i>tsx</i> $\Delta$ <i>ompT</i>	pET21b (no CdiA)	minicells	0	1
MG1655 $\Delta$ <i>wzb</i> $\Delta$ <i>tsx</i> $\Delta$ <i>ompT</i>	pCH13604 CdiA <sup>STECO31</sup>	bacteria	14	14
MG1655 $\Delta$ <i>wzb</i> $\Delta$ <i>tsx</i> $\Delta$ <i>ompT</i>	pCH13604 CdiA <sup>STECO31</sup>	minicells	23	23

Table S2. CdiA domain analysis, Related to Figures 7B and 7C.

NCBI identifier	Bacterial species and strain	CdiA length	FHA-1 region			RBD <sup>a</sup>			YP domain			FHA-2 domain <sup>b</sup>		
			begin	end	length	begin	end	length	begin	end	length	begin	end	length
WP_109054141.1	<i>Brenneria roseae</i> subsp. americana	5237	392	3171	2780	3172	3619	448	3620	3805	186	3979	4656	678
WP_095834043.1	<i>Brenneria goodwinii</i> FRB141	5550	477	3114	2638	3115	3562	448	3563	3748	186	4054	4863	810
WP_053085546.1	<i>Brenneria goodwinii</i> OBR1	5538	477	3114	2638	3115	3552	438	3553	3738	186	4044	4853	810
WP_064541030.1	<i>Buttiauxella ferrugutiae</i> ATCC 51602	3961	312	2025	1714	2026	2362	337	2363	2547	185	2717	3321	605
WP_051880442.1	<i>Buttiauxella agrestis</i> MCE	3828	311	1896	1586	1897	2220	324	2221	2405	185	2420	3179	760
WP_039294138.1	<i>Cedecea neteri</i> M006	5018	310	2694	2385	2695	3094	400	3095	3279	185	3448	4320	873
WP_038482520.1	<i>Cedecea neteri</i> SSMD04	4373	310	2383	2074	2384	2790	407	2791	2975	185	3144	3689	546
WP_061277518.1	<i>Cedecea neteri</i> NBRC 105707	4616	310	2696	2387	2697	3114	418	3115	3299	185	3468	4013	546
WP_039303703.1	<i>Cedecea neteri</i> ND14a	4668	310	2696	2387	2697	3111	415	3112	3296	185	3326	4073	748
WP_016151891.1	<i>Citrobacter</i> sp. KTE151	3318	309	1386	1078	1387	1662	276	1663	1847	185	2072	2625	554
WP_052406297.1	<i>Citrobacter sedlakii</i> NBRC 105722	3142	309	1262	954	1263	1557	295	1558	1742	185	1897	2519	623
WP_052443881.1	<i>Citrobacter</i> sp. JT3	3602	310	1357	1048	1358	1660	303	1661	1845	185	2005	2948	944
WP_102602775.1	<i>Citrobacter freundii</i> complex sp. CFNIH2	3629	310	1357	1048	1358	1660	303	1661	1845	185	2005	2948	944
WP_049042230.1	<i>Citrobacter braakii</i> 989_CKOS	3950	309	2001	1693	2002	2345	344	2346	2530	185	2639	3305	667
WP_016155806.1	<i>Citrobacter</i> sp. KTE32	3950	309	2001	1693	2002	2345	344	2346	2530	185	2707	3379	673
WP_052746947.1	<i>Citrobacter amalonaticus</i> Y19	3628	310	1357	1048	1358	1657	300	1658	1842	185	1997	2952	956
WP_109017325.1	<i>Citrobacter freundii</i> MH16-522D	3950	309	2001	1693	2002	2345	344	2346	2530	185	2707	3379	673
WP_105242179.1	<i>Citrobacter</i> sp. FDAARGOS_156	3985	352	2002	1651	2003	2346	344	2347	2531	185	2693	3308	616
WP_080625654.1	<i>Citrobacter braakii</i> FDAARGOS_253	3950	309	2001	1693	2002	2345	344	2346	2530	185	2697	3379	683
WP_047413132.1	<i>Citrobacter freundii</i> FDAARGOS_61	3950	309	2001	1693	2002	2345	344	2346	2530	185	2697	3379	683
WP_087051660.1	<i>Citrobacter europaeus</i> A121	3950	309	2001	1693	2002	2345	344	2346	2530	185	2697	3379	683
WP_043015339.1	<i>Citrobacter freundii</i> MGH 56	3880	309	2001	1693	2002	2345	344	2346	2530	185	2707	3379	673
WP_087053097.1	<i>Citrobacter europaeus</i> 97/99	3950	309	2001	1693	2002	2345	344	2346	2530	185	2697	3379	683
WP_085047670.1	<i>Citrobacter werkmanii</i> AK-8	3929	309	2001	1693	2002	2345	344	2346	2530	185	2707	3307	601
WP_103283520.1	<i>Citrobacter freundii</i> complex sp. CFNIH3	3962	330	2001	1672	2002	2357	356	2358	2542	185	2719	3391	673
WP_103765923.1	<i>Citrobacter braakii</i> S1283	3825	309	2001	1693	2002	2329	328	2330	2514	185	2691	3287	597
WP_101700591.1	<i>Citrobacter</i> sp. L55	3901	309	2001	1693	2002	2329	328	2330	2514	185	2691	3363	673
WP_075846765.1	<i>Citrobacter braakii</i> SCC4	3934	309	2001	1693	2002	2329	328	2330	2514	185	2691	3363	673
WP_016151957.1	<i>Citrobacter</i> sp. KTE151	3901	309	2001	1693	2002	2329	328	2330	2514	185	2691	3289	599
WP_019076112.1	<i>Citrobacter freundii</i> str. Ballerup 7851	3901	309	2001	1693	2002	2329	328	2330	2514	185	2691	3287	597
WP_100194023.1	<i>Citrobacter freundii</i> CRCB-101	3962	309	2001	1693	2002	2357	356	2358	2542	185	2709	3391	683
WP_023639573.1	<i>Dickeya zeae</i> NCPPB 3532	3008	307	1104	798	1105	1409	305	1410	1594	185	1705	2304	600
WP_019845538.1	<i>Dickeya zeae</i> MS1	2975	307	1104	798	1105	1392	288	1393	1577	185	1743	2355	613
WP_046830404.1	<i>Dickeya dianthicola</i> RNS04.9	3839	288	1906	1619	1907	2278	372	2279	2463	185	2626	3240	615
WP_050568668.1	<i>Dickeya zeae</i> NCPPB 2538	3222	307	1104	798	1105	1421	317	1422	1607	186	1844	2652	809
AAN38708.1	<i>Dickeya chrysanthemi</i> EC16	3848	512	1901	1390	1902	2263	362	2264	2449	186	2551	3172	622
WP_081251380.1	<i>Dickeya solani</i> IPO 2222	4165	309	1933	1625	1934	2305	372	2306	2491	186	2599	3536	938
WP_013318031.1	<i>Dickeya dadantii</i> 3937	4148	320	2116	1797	2117	2480	364	2481	2666	186	2776	3391	616
ACS85791.1	<i>Dickeya paradisiaca</i> Ech703	3862	512	1904	1393	1905	2270	366	2271	2454	184	2617	3230	614
WP_107759469.1	<i>Dickeya</i> sp. Secpp 1600	4339	437	2061	1625	2062	2428	367	2429	2614	186	2724	3661	938
WP_100849600.1	<i>Dickeya fangzhongdai</i> DSM 101947	4031	437	2059	1623	2060	2427	368	2428	2613	186	2721	3336	616
WP_071842415.1	<i>Dickeya solani</i> ND14b	4231	438	2059	1622	2060	2432	373	2433	2618	186	2726	3663	938
WP_100849620.1	<i>Dickeya fangzhongdai</i> DSM 101947	4056	437	2042	1606	2043	2410	368	2411	2596	186	2704	3319	616
WP_101744646.1	<i>Enterobacter</i> sp. Crenshaw	4465	311	2162	1852	2163	2487	325	2488	2673	186	2832	3779	948
WP_084832595.1	<i>Enterobacter cloacae</i> UCI 39	4142	311	2163	1853	2164	2488	325	2489	2674	186	2833	3449	617
WP_011915321.1	<i>Enterobacter</i> sp. 638	3967	311	2120	1810	2121	2445	325	2446	2631	186	2970	3407	438
WP_106994740.1	<i>Enterobacter</i> sp. FS01	3002	309	1212	904	1213	1504	292	1505	1689	185	1850	2399	550
KDF47155.1	<i>Enterobacter cloacae</i> BIDMC 67	3195	310	1495	1186	1496	1768	273	1769	1953	185	2056	2660	605
WP_062856360.1	<i>Enterobacter</i> sp. RC4	3292	309	1495	1187	1496	1768	273	1769	1953	185	2047	2663	617
ESN17358.1	<i>Enterobacter</i> sp. MGH 24	3243	309	1535	1227	1536	1808	273	1809	1993	185	2096	2700	605
WP_006812043.1	<i>Enterobacter hormaechei</i> ATCC 49162	3436	684	1536	853	1537	1829	293	1830	2014	185	2247	2791	545
WP_084832630.1	<i>Enterobacter cloacae</i> MGH 54	4214	311	2163	1853	2164	2505	342	2506	2690	185	2850	3466	617
WP_084833443.1	<i>Enterobacter cloacae</i> e2161	4154	311	2163	1853	2164	2500	337	2501	2686	186	2845	3461	617

WP_096179245.1	<i>Enterobacter asburiae</i> TUM10688	4043	273	2162	1890	2163	2498	336	2499	2684	186	2843	3459	617
WP_046091940.1	<i>Enterobacter cloacae</i> MNCRE16	4225	311	2163	1853	2164	2500	337	2501	2686	186	2845	3466	622
WP_073980716.1	<i>Enterobacter ludwigii</i> EnVs6	3500	274	1708	1435	1709	2015	307	2016	2199	184	2422	2907	486
WP_084832228.1	<i>Enterobacter cloacae</i> complex sp. 20432	4209	311	2163	1853	2164	2500	337	2501	2686	186	2845	3461	617
WP_084833300.1	<i>Enterobacter cloacae</i> DSM 16690	4381	311	2163	1853	2164	2499	336	2500	2685	186	2844	3791	948
WP_023345176.1	<i>Enterobacter</i> sp. MGH 16	4214	311	2163	1853	2164	2505	342	2506	2691	186	2850	3466	617
WP_001385946.1	<i>Escherichia coli</i> STEC_O31	3253	310	1384	1075	1385	1656	272	1657	1841	185	1996	2548	553
AAZ57198.1	<i>Escherichia coli</i> EC93	3132	310	1378	1069	1379	1635	257	1636	1820	185	2050	2526	477
WP_029589770.1	<i>Franconibacter helveticus</i> LMB 23732	4374	311	2363	2053	2364	2709	346	2710	2915	206	3137	3695	559
WP_073859864.1	<i>Franconibacter pulveris</i> DJ34	4171	312	2363	2052	2364	2689	326	2690	2895	206	3061	3678	618
WP_106930237.1	<i>Kluyvera ascorbata</i> KA2	3302	309	1386	1078	1387	1670	284	1671	1855	185	2017	2707	691
WP_064567413.1	<i>Kosakonia oryzae</i> Ola 51	3984	310	1933	1624	1934	2265	332	2266	2450	185	2482	3235	754
WP_074775709.1	<i>Kosakonia sacchari</i> SP1	3980	311	1644	1334	1645	1978	334	1979	2163	185	2195	3272	1078
SKC22705.1	<i>Kosakonia oryzae</i> D4	3665	310	1759	1450	1760	2091	332	2092	2276	185	2369	3061	693
WP_107146251.1	<i>Kosakonia</i> sp. H7A	3671	310	1759	1450	1760	2097	338	2098	2282	185	2314	3067	754
KDE37341.1	<i>Kosakonia radicincitans</i> UMEt01/12	3671	310	1759	1450	1760	2097	338	2098	2282	185	2314	3067	754
WP_083565982.1	<i>Kosakonia radicincitans</i> GXGL-4A	3705	310	1759	1450	1760	2131	372	2132	2316	185	2348	3101	754
WP_052502032.1	<i>Kosakonia radicincitans</i> YD4	4124	310	1759	1450	1760	2131	372	2132	2316	185	2427	3425	999
WP_094419452.1	<i>Kosakonia cowanii</i> Esp_Z	4959	310	2850	2541	2851	3186	336	3187	3458	272	3628	4242	615
WP_082142181.1	<i>Leclercia</i> sp. LK8	4141	311	2163	1853	2164	2488	325	2489	2674	186	2833	3449	617
WP_082019608.1	<i>Leclercia adecarboxylata</i> KY2	3024	312	1251	940	1252	1524	273	1521	1706	186	1862	2411	550
WP_036108049.1	<i>Mangrovibacter</i> sp. MFB070	3577	311	1709	1399	1710	2033	324	2034	2219	186	2303	3003	701
WP_083581958.1	<i>Pantoea sesami</i> Si-M154	3304	310	1496	1187	1497	1769	273	1770	1954	185	2057	2661	605
WP_052696968.1	<i>Pantoea</i> sp. SM3	4171	311	1941	1631	1942	2278	337	2279	2462	184	2615	3483	869
WP_109718305.1	<i>Pantoea allii</i> PNA 200-10	4266	312	2033	1722	2034	2361	328	2362	2545	184	2707	3629	923
WP_105077596.1	<i>Pantoea ananatis</i> PANS 99-23	3976	311	2033	1723	2034	2361	328	2362	2545	184	2708	3320	613
WP_081138203.1	<i>Pantoea latae</i> AS1	3884	394	1935	1542	1936	2261	326	2262	2445	184	2614	3225	612
WP_081049483.1	<i>Pantoea stewartii</i> RSA30	4032	311	2033	1723	2034	2361	328	2362	2545	184	2546	3320	775
WP_014593028.1	<i>Pantoea ananatis</i> AJ13355	3728	314	1764	1451	1765	2113	349	2114	2297	184	2298	3072	775
WP_013024799.1	<i>Pantoea ananatis</i> LMG 20103	3667	311	1761	1451	1762	2091	330	2092	2275	184	2276	3055	780
SFN23123.1	<i>Pantoea</i> sp. OV426	4089	312	1826	1515	1827	2161	335	2162	2345	184	2442	3445	1004
WP_080752852.1	<i>Pantoea stewartii</i> M009	4046	311	2033	1723	2034	2326	293	2327	2510	184	2603	3290	688
WP_081316794.1	<i>Pantoea stewartii</i> NS381	4322	311	2033	1723	2034	2382	349	2383	2566	184	2567	3653	1087
WP_085067788.1	<i>Pantoea alhagi</i> LTYR-11Z	3779	312	1728	1417	1729	2065	337	2066	2251	186	2422	3030	609
WP_081325946.1	<i>Pantoea agglomerans</i> C410P1	4169	311	1865	1555	1866	2212	347	2213	2398	186	2781	3496	716
WP_082787945.1	<i>Pantoea vagans</i> FaVv11	4150	311	1865	1555	1866	2193	328	2194	2378	185	2562	3477	916
WP_013358311.1	<i>Pantoea vagans</i> C9-1	4320	311	1978	1668	1979	2319	341	2320	2504	185	2679	3603	925
WP_104093316.1	<i>Pantoea</i> sp. ICBG 985	3571	275	1614	1340	1615	1914	300	1915	2116	202	2231	2893	663
WP_088517282.1	<i>Pantoea</i> sp. VS1	3515	275	1614	1340	1615	1905	291	1906	2107	202	2279	2884	606
POY59994.1	<i>Pectobacterium maceratum</i> PB70	5651	464	3561	3098	3562	4052	491	4053	4238	186	4405	5014	610
WP_072034242.1	<i>Pectobacterium carotovorum</i> M022	5051	495	2967	2473	2968	3406	439	3407	3592	186	3759	4368	610
WP_014915528.1	<i>Pectobacterium carotovorum</i> PCC21	5819	292	3696	3405	3697	4196	500	4197	4382	186	4556	5158	603
WP_014915291.1	<i>Pectobacterium carotovorum</i> PCC21	6075	292	3660	3369	3661	4149	489	4150	4335	186	4509	5445	937
WP_095994655.1	<i>Pectobacterium polaris</i> NIBIO1006	6217	292	3749	3458	3750	4244	495	4245	4430	186	4597	5540	944
SHG12251.1	<i>Pectobacterium carotovorum</i> DSM 30168	5857	496	3668	3173	3669	4164	496	4165	4350	186	4517	5126	610
PPE62299.1	<i>Pectobacterium carotovorum</i> F157	5839	288	3666	3379	3667	4142	476	4143	4328	186	4502	5104	603
PPE64673.1	<i>Pectobacterium carotovorum</i> F152	6442	496	4303	3808	4304	4853	550	4854	5039	186	5213	5815	603
AVT58658.1	<i>Pectobacterium carotovorum</i> 3-2	5749	519	3673	3155	3674	4168	495	4169	4354	186	4528	5130	603
POY56417.1	<i>Pectobacterium maceratum</i> F018	5747	520	3654	3135	3655	4148	494	4149	4334	186	4508	5110	603
WP_080735406.1	<i>Pectobacterium carotovorum</i> NCPBP 3839	5845	500	3669	3170	3670	4181	512	4182	4367	186	4534	5143	610
PVY74713.1	<i>Pectobacterium carotovorum</i> WS2152	5889	500	3710	3211	3711	4196	486	4197	4382	186	4550	5158	609
WP_094369960.1	<i>Pectobacterium carotovorum</i> BF45	5785	292	3667	3376	3668	4162	495	4163	4348	186	4522	5124	603
WP_080768449.1	<i>Pectobacterium carotovorum</i> YC D64	6059	287	3650	3364	3651	4136	486	4137	4322	186	4496	5432	937
AIK14231.1	<i>Pectobacterium atrosepticum</i> 21A	5753	472	3681	3210	3682	4157	476	4158	4343	186	4458	5119	662
WP_025920092.1	<i>Pectobacterium parmentieri</i> CFIA1002	5448	289	3030	2742	3031	3474	444	3475	3660	186	3834	4766	933

<b>ACX88282.1</b>	<b><i>Pectobacterium parmentieri</i> WPP163</b>	<b>5981</b>	289	3630	<b>3342</b>	3631	4106	<b>476</b>	4107	4292	<b>186</b>	4407	5397	<b>991</b>
WP_074824325.1	<i>Pragia fontium</i> ATCC 49100	<b>3121</b>	335	947	<b>613</b>	948	1195	<b>248</b>	1196	1380	<b>185</b>	1549	2435	<b>887</b>
WP_013575347.1	<i>Rahnella</i> sp. Y9602	<b>3756</b>	312	1813	<b>1502</b>	1814	2101	<b>288</b>	2102	2327	<b>226</b>	2485	3102	<b>618</b>
WP_015689887.1	<i>Rahnella aquatilis</i> HX2	<b>3756</b>	312	1813	<b>1502</b>	1814	2101	<b>288</b>	2102	2327	<b>226</b>	2485	3102	<b>618</b>
AEX52032.1	<i>Rahnella aquatilis</i> ATCC 33071	<b>3895</b>	312	1953	<b>1642</b>	1954	2243	<b>290</b>	2244	2469	<b>226</b>	2627	3246	<b>620</b>
WP_086935272.1	<i>Rahnella aquatilis</i> ATCC 33071	<b>3901</b>	318	1959	<b>1642</b>	1960	2249	<b>290</b>	2250	2475	<b>226</b>	2633	3252	<b>620</b>
WP_101079777.1	<i>Rahnella</i> sp. AA	<b>3431</b>	279	1594	<b>1316</b>	1595	1884	<b>290</b>	1885	2082	<b>198</b>	2240	2860	<b>621</b>
WP_082001717.1	<i>Rahnella aquatilis</i> OV588	<b>3887</b>	312	1954	<b>1643</b>	1955	2242	<b>288</b>	2243	2488	<b>246</b>	2646	3265	<b>620</b>
WP_102076025.1	<i>Rahnella victoriana</i> BRK18a	<b>4027</b>	312	2030	<b>1719</b>	2031	2318	<b>288</b>	2319	2564	<b>246</b>	2722	3342	<b>621</b>
WP_071683781.1	<i>Serratia fonticola</i> AeS1	<b>3994</b>	298	2000	<b>1703</b>	2001	2332	<b>332</b>	2333	2517	<b>185</b>	2751	3297	<b>547</b>
WP_065683710.1	<i>Serratia</i> sp. 14-2641	<b>3848</b>	297	2000	<b>1704</b>	2001	2332	<b>332</b>	2333	2517	<b>185</b>	2689	3297	<b>609</b>
WP_004956787.1	<i>Serratia odorifera</i> DSM 4582	<b>3986</b>	297	2000	<b>1704</b>	2001	2342	<b>342</b>	2343	2527	<b>185</b>	2752	3307	<b>556</b>
WP_051791190.1	<i>Serratia</i> sp. DD3	<b>3350</b>	335	1484	<b>1150</b>	1485	1768	<b>284</b>	1769	1953	<b>185</b>	2053	2735	<b>683</b>
WP_013814704.1	<i>Serratia plymuthica</i> AS9	<b>3314</b>	419	1464	<b>1046</b>	1465	1748	<b>284</b>	1749	1933	<b>185</b>	2101	2642	<b>542</b>
WP_020439873.1	<i>Serratia plymuthica</i> S13	<b>3337</b>	313	1464	<b>1152</b>	1465	1746	<b>282</b>	1747	1931	<b>185</b>	2098	2714	<b>617</b>
<b>WP_012147097.1</b>	<b><i>Serratia proteamaculans</i> 568</b>	<b>3040</b>	313	1164	<b>852</b>	1165	1432	<b>268</b>	1433	1617	<b>185</b>	1784	2400	<b>617</b>
WP_017894168.1	<i>Serratia</i> sp. S4	<b>2993</b>	313	1164	<b>852</b>	1165	1432	<b>268</b>	1433	1617	<b>185</b>	1784	2400	<b>617</b>
WP_084297639.1	<i>Serratia</i> sp. ATCC 39006	<b>3690</b>	300	1812	<b>1513</b>	1813	2155	<b>343</b>	2156	2341	<b>186</b>	2452	3049	<b>598</b>
WP_049254954.1	<i>Shigella boydii</i> 1221_SBOY	<b>3213</b>	309	1398	<b>1090</b>	1399	1655	<b>257</b>	1656	1840	<b>185</b>	2070	2546	<b>477</b>
<b>EIQ74285.1</b>	<b><i>Shigella flexneri</i> 1235-66</b>	<b>3961</b>	258	2002	<b>1745</b>	2003	2358	<b>356</b>	2359	2543	<b>185</b>	2576	3320	<b>745</b>
WP_051857422.1	<i>Trabulsiella guamensis</i> ATCC 49490	<b>3707</b>	311	1438	<b>1128</b>	1439	1737	<b>299</b>	1738	1921	<b>184</b>	2102	2800	<b>699</b>
WP_054181051.1	<i>Trabulsiella odontotermitis</i> TbO1.1	<b>3189</b>	309	1262	<b>954</b>	1263	1552	<b>290</b>	1553	1737	<b>185</b>	1908	2516	<b>609</b>
WP_038156365.1	<i>Trabulsiella guamensis</i> ATCC 49490	<b>3299</b>	311	1438	<b>1128</b>	1439	1731	<b>293</b>	1732	1915	<b>184</b>	2099	2696	<b>598</b>
EEP92680.1	<i>Yersinia kristensenii</i> ATCC 33638	<b>3396</b>	337	1484	<b>1148</b>	1485	1765	<b>281</b>	1766	1950	<b>185</b>	2182	2737	<b>556</b>
WP_099461935.1	<i>Yersinia massiliensis</i> SCPM-O-B-8024	<b>3311</b>	368	1484	<b>1117</b>	1485	1765	<b>281</b>	1766	1950	<b>185</b>	2126	2737	<b>612</b>
CNE70603.1	<i>Yersinia kristensenii</i> 119/84	<b>3322</b>	337	1484	<b>1148</b>	1485	1765	<b>281</b>	1766	1950	<b>185</b>	2182	2812	<b>631</b>
WP_072087237.1	<i>Yersinia frederiksenii</i> IP23698	<b>3311</b>	354	1484	<b>1131</b>	1485	1765	<b>281</b>	1766	1950	<b>185</b>	2126	2737	<b>612</b>
CQJ01032.1	<i>Yersinia frederiksenii</i> 112/02	<b>2998</b>	354	1484	<b>1131</b>	1485	1765	<b>281</b>	1766	1950	<b>185</b>	2126	2737	<b>612</b>
WP_005186610.1	<i>Yersinia intermedia</i> ATCC 29909	<b>3435</b>	397	1484	<b>1088</b>	1485	1765	<b>281</b>	1766	1950	<b>185</b>	2128	2737	<b>610</b>
WP_050133220.1	<i>Yersinia frederiksenii</i> BR166/97	<b>2957</b>	515	1074	<b>560</b>	1075	1342	<b>268</b>	1343	1528	<b>186</b>	1705	2311	<b>607</b>
WP_050536725.1	<i>Yersinia mollaretii</i> 92/84	<b>2964</b>	304	1074	<b>771</b>	1075	1342	<b>268</b>	1343	1528	<b>186</b>	1628	2376	<b>749</b>
WP_050141948.1	<i>Yersinia enterocolitica</i> YE8850	<b>2964</b>	307	1074	<b>768</b>	1075	1342	<b>268</b>	1343	1528	<b>186</b>	1628	2376	<b>749</b>
<b>WP_004876812.1</b>	<b><i>Yersinia mollaretii</i> ATCC 43969</b>	<b>2963</b>	418	1074	<b>657</b>	1075	1342	<b>268</b>	1343	1528	<b>186</b>	1628	2376	<b>749</b>
WP_050535527.1	<i>Yersinia mollaretii</i> 61/02	<b>2993</b>	307	1074	<b>768</b>	1075	1342	<b>268</b>	1343	1528	<b>186</b>	1628	2376	<b>749</b>

<sup>a</sup>The receptor-binding domain (RBD) was determined as the variable region between the last repeat of the FHA-1 region and the YPLP motif of the YP domain.

<sup>b</sup>The FHA-2 region was measured according to annotations on the NCBI server.

**Table S3. Oligonucleotides, Related to Figure STAR Methods.**

Identifier	Descriptor	Sequence <sup>a</sup>
CH403	T7-BgIII	5' - AAA AGA TCT TAA TAC GAC TCA CTA TAG GAA TTG TGA GCG GAT AAC
CH2770	minE-Nco-for	5' - TTT <u>CCA TGG</u> CAT TAC TCG ATT TCT TTC TCT C
CH2771	minE-Bam-rev	5' - TTT <u>GGA TCC</u> GGC TA TTT CAG CTC TTC TG
CH4239	STEC-Kpn-for	5' - CAG <u>CGG TAC CCT</u> CTC CG
CH4240	STEC-L899-Xho-rev	5' - TTT <u>CTC GAG</u> CAG AGT GAT GTT CTG CCC C
CH4241	STEC-R1000-Xho-for	5' - AAA <u>CTC GAG</u> AGA GAC ATC AGC AAT AGT GGG C
CH4243	STEC-E1399-Xho-rev	5' - TTT <u>CTC GAG</u> CTC AAC CGG AAT GTA TGA TTT TGT C
CH4244	STEC-G1500-Xho-for	5' - AAA <u>CTC GAG</u> GGT TCA CAA CTG AAT AAT CAG TCC TTC
CH4245	STEC-A1853-Nco/Xho-rev	5' - TTT <u>CTC GAG CCA TGG</u> CTG CCA GGT GAA CAT TCT GAC
CH4247	STEC-V2323-Afl/Not-rev	5' - TTT <u>GCG GCC GCC TTA AGG</u> ACC GCA TTA TTG ATG GCA CTG
CH4282	STEC-Afl/Sph-for	5' - TTT <u>GCA TGC TTA AGG</u> CCG GTG GTA ACA C
CH4283	STEC-S2917-Nhe/Xho-rev	5' - TTT <u>CTC GAG GCT AGC</u> GCT GCT GTT TCC GG
CH4371	STEC(3)-Nhe/Afl-for	5' - AAA <u>GCT AGC CTT AAG</u> GCC GGT GGT AAC AC
CH4372	STEC(3)-T2780-Sac-rev	5' - TTT <u>GAG CTC</u> CGT ATC ACG CAG TTT CGC AAG
CH4373	STEC(3)-L2881-Sac-for	5' - AAA <u>GAG CTC</u> CTG TAT CCG GGC GTG AAA C
CH4374	STEC(3)-Xho-rev	5' - TTT <u>CTC GAG</u> TGG CCG GAA TCT
CH4381	STEC(3)-Y1657-Xho-rev	5' - TTT <u>CTC GAG</u> ATA GTT CCC CTC CAC GAT GC
CH4382	STEC(3)-G1708-Xho-for	5' - AAA <u>CTC GAG</u> GGG CAG GCA CCA CG
CH4383	STEC(3)-P1707-Xho-rev	5' - TTT <u>CTC GAG</u> GGG GTG CAT CCT GAG C
CH4384	STEC(3)-Y1758-Xho-for	5' - AAA <u>CTC GAG</u> TAT ATG CTG AAC CAG ATC GGG G
CH4412	STEC(3)-N2934A-for	5' - AGA GCG GGA AGA ATG CTG TTG ATA ATG CCT ACC TGA GCG TG
CH4413	STEC(3)-A2918-Nhe-for	5' - AGC <u>GCT AGC</u> GCA GCA GTG GGC GCA CAG AGC GGG AAG AAT GC
ZR256	tsx-Not-for	5' - TTT GCG GCC <u>GCG AAT TCG</u> GGA TTT TCA AAC AGT GGC ATA C
ZR257	tsx-Xho-rev	5' - TTT CTC GAG <u>TCT AGA</u> AAA TCC CGG CAT TTT CAT AAT CAG
ZR260	J2M139 CDI-Not-for	5' - TTT <u>GCG GCC GCA</u> ATG TCT GGT TGT GGC AGG
ZR261	J2M139 CDI-Xho-rev	5' - TTT <u>CTC GAG</u> TGG CCG GAA TCT TTA CTC AG
ZR267	cdiA(S504C)(STEC)Kpn-rev	5' - GAG <u>GGT ACC</u> GCA GTT GTT TAT CTG CGT GGC AC
ZR268	STEC-A498-Kpn-for	5' - GCC ACG CAG ATA AAC AAC AGC
ZR269	STEC-cdiA(E512)-rev	5' - GTT CCT TTG CCC CGG AG
ZR271	cdiA(S1550C)(STEC)Sac-rev	5' - CCG <u>GAG CTC</u> CAC AGA GAG TAA AGG TAA CGC GAT CAT C
ZR274	STEC-D1692-Sal-rev	5' - GCT <u>GTC GAC</u> CTT TCC GAG ACC ATC CAG
ZR275	STEC-S1693C-Sal-for	5' - AAG <u>GTC GAC</u> TGT AGT CTG TTT GCC GGA CTG TAT GAC
ZR277	STEC-G1726C-Xba-rev	5' - CCG <u>GTC TAG</u> AAA ATA CGA TGA ACA CGG GAA TTG TTT TTC ATC AGT ATA CG
ZR281	STEC-L1731-Xba-for	5' - TTT <u>TCT AGA</u> CCG GCT CGG GCT GAA AC
ZR280	STEC-cdiA(A1807C)-Sex-for	5' - CAG <u>ACC AGG TGG</u> CGT GTC TTG ACC AAA GTA TTC TGT GGT ATA AAG
ZR285	STEC-cdiA(D1959)-rev	5' - GTC CAG ACT <u>ATC CAT GGC</u> AC
ZR286	cdiA(D1959C)(STEC)Nco-for	5' - GTG <u>CCA TGG</u> ATA GTC TGT GCA TCC GGG CAG ATA AAA ACA TTT CG
ZR287	STEC-R1961-Not-rev	5' - TTT <u>GCG GCC GCG</u> GAT GTC CAG ACT <u>ATC CAT GG</u>
ZR288	STEC-T2502C-Eco-rev	5' - ACC <u>AGA ATT CAG</u> GGT GAC ACA TTT ACC GCT GTC TGT TGT GG
ZR290	STEC-N2506-Eco-for	5' - ACC <u>CTG AAT TCT</u> GGT CGG GAT ACG GTA CTG
ZR293	STEC-G2648-Spe-for	5' - TTT ACT AGT GGC AGC TTC GGG GAT AAA TTT C
ZR294	cdiA(S3217C)(STEC)Mfe-for	5' - CCG <u>CAA TTG</u> GTT ATT GCA ATG CAA TAA AAA ATG GAT TAC AGG C
ZR295	malE-Not-for	5' - TTT <u>GCG GCC GCC</u> AAC AAG GAC CAT AGA TTA TG
ZR296	malE-dSS-Not-for	5' - TTT <u>GCG GCC GCA</u> AGG ACC ATA GAT TAT GAA AAT CGA AGA AGG TAA ACT GG
ZR297	malE-CysHis6-Xho-rev	5' - TTT <u>CTC GAG</u> CTA GTG ATG GTG ATG GTG ATG AGA TCC ACC ACA CTT GGT GAT ACG AGT CTG
ZR347	cdiA(A1954)(STEC)Not-for	5' - TTT <u>GCG GCC GCC ATG</u> GAT AGT CTG GAC ATC C
ZR348	cdiA(S2731C)(STEC)Bam-rev	5' - TTT <u>GGA TCC</u> TAT GTC GCA GAT AAG CCC CAC TGT CTG C
ZR349	cdiA(G2734)(STEC)Bam-for	5' - TTT <u>GGA TCC</u> CAG GTG GCG GAT ATC GCG

<sup>a</sup> Underlined residues indicate restriction endonuclease recognition sites.